

WORKSHEET FOR CALCULATION OF ST. 10 COLUMN WELLHEAD PRESSURE (P_w)

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COMPANY XPC LEASE Locandale Mill Field WELL NO. 1 DATE 10-16-80

LOCATION: Unit H Section 34 Township 6S Range 24E

L 3425 H 3425 L/H 1.000 C 6.656 % CO₂ 1.24 % N₂ 6.06 % H₂S 1.11
 2 1/8" 3480 (5.853) 20139
 5/8" 45 (2.512) 1130
 3/4" 3425 (2.099) 21264
 d 2.492 F_i 2.219357 GH 2.21468
 P_{cr} 664 T_{cr} 3.58
 TABLE B.1 TABLE B.2

LINE	1	2	3	4					
1 Q _m	—	0.102	0.141	0.172	1.263				
2 T _w (W.H. °R)	549	549	550	551	552				
3 T _s (B.H. °R)	557	557	556	556	555				
4 T = (T _w + T _s)	553	553	553	553.5	553.5				
5 Z (Est.)	.871	0.8775	0.877	0.877	0.877				
6 T _z	481.66	485.26	487.19	488.51	491.47				
7 GH/T _z	4.6647	4.6301	4.617	4.5712	4.4801				
8 e _s (Table XIV)	1.19116	1.18996	1.1888	1.1870	1.1830				
9 1-e _s (Table XIV)		0.1595	0.1588	0.1575	0.1547				
10 P _i	963.2	915.2	881.2	818.2	685.2				
11 P _i 2/1000	927.75	837.51	776.51	669.45	469.50				
12 F _i (Table XIV)	0.17493	0.17363	0.17294	0.17142	0.16802				
13 F _c = F _i T _z		4.538	4.5286	4.599	4.692				
14 F _c Q _m		0.463	0.643	0.883	1.234				
15 L/H (F _c Q _m) ²		0.214	0.413	0.780	1.523				
16 F _w = L/H (F _c Q _m) ² (1-e _s)		0.03	0.07	0.12	0.24				
17 P _w ² = P _i ² + F _w		337.62	776.58	669.57	469.94				
18 P _s ² = e _s P _w ²									
19 P _s	1105.1	776.4	923.2	794.8	555.9				
20 P = (P _i + P _s)	1051.2	998.2	960.8	891.5	745.5				
21 P _i = (P/P _{cr})	1.517	1.441	1.387	1.287	1.077				
22 T _w = (T/T _{cr})	1.515	1.515	1.515	1.515	1.515				